



Senate Enrolled Act No. 369



Update Indiana's Water Shortage Plan





History of Water Shortage Plan



★ 1988: Drought focused attention on need for statewide plan to minimize impacts of a water shortage



★ 1991: Indiana General Assembly enacted HB 1260 which required DNR to develop Water Shortage Plan



★ 1994: Water Shortage Plan completed with input from Industry, Agriculture, Public Water Supplies, Municipalities, Environmental Groups, Government Agencies, etc.



Water Shortage Stages

Four stages of water shortage:

1. Normal
2. Watch
3. Warning
4. Emergency

Based upon Palmer Hydrologic Drought Index or exceedance values of regionalized monthly average stream flows.





Water Shortage Stages



★ Normal

★ Watch - 5% voluntary reduction of water use



★ Warning - 10% to 15% voluntary reduction of water use



★ Emergency – 15% or greater mandatory and voluntary reduction of consumptive water use



Water Shortage Indicators



Stage	PHDI	Exceedance
1) Normal	+1.99 to -1.99	Up to 75%
2) Watch	-2.00 to -2.99	75% to 90%
3) Warning	-3.00 to -3.99	90% to 95%
4) Emergency	-4.00 or less	Over 95%



Appoint a Task Force

Director,

Department of Natural Resources



10 individuals, representing

- ★ **Key water withdrawal users**, including: public water supply utilities, agriculture, steam electric generating utility companies, industrial users
- ★ **Academic experts** in aquatic habitat and hydrology
- ★ **Municipalities**
- ★ **Key stakeholders**, including: environmentalists, consumer advocates, economic development advocates, and the public





Task Force Members



★ **Public water supply utilities** – Bill Etzler, Aqua Indiana, Inc.



★ **Agriculture** – James Facemire, Farmer, Johnson County SWCD Board of Supervisors



★ **Steam electric generating utilities** – Jim Butcher, Indiana Michigan Power

★ **Industrial users** – Mike Brooks, Steel Dynamics, Inc.

★ **Academic experts** – Dennis Wichelns, Rivers Institute at Hanover College



Task Force Members (cont.)



★ **Municipalities** – Carlton Curry; Indianapolis Dept. of Waterworks



★ **Environmentalists** – John Goss, Indiana Wildlife Federation



★ **Consumer advocates** – Scott Bell, Office of the Utility Consumer Counselor

★ **Economic development advocates** – Vince Griffin, Indiana Chamber of Commerce

★ **Public** – Jack Wittman, Wittman Hydro Planning Associates, Inc.



State Agency Advisors



★ DNR

★ IDEM



★ DHS

★ ISDA

★ ISDH



★ IURC – not required by statute, but important to discussion



Additional Advisors

- ★ Purdue University
- ★ Army Corps of Engineers
- ★ USGS
- ★ National Weather Service





Task Force purposes

- ★ **Implement** 1994 Water Shortage Plan
- ★ **Update** Water Shortage Plan (with involvement of affected parties) – include low flow and drought priority use schedule
- ★ **Establish Procedures** to monitor, assess, and inform public regarding water shortages
- ★ **Recommend Policy** on desired baseline flow for in-stream uses





Task Force purposes (continued)



★ **Recommend policy** to promote water conservation



★ **Prepare water withdrawal status report**

- Consumptive v. non-consumptive use
- Water shortage challenges based on trends



★ **Collect information** on water use conflicts and resolutions



Task Force purposes (continued)

★ Encourage local government

- To pass ordinances that promote conservation and establish water use priorities during drought
- Publicize need to prepare for drought

★ Prepare annual report of progress





Summary of Work Already Completed by DNR



★ Status of registered significant water withdrawal facilities, including consumptive use



★ Locations and resolutions of reported ground water conflicts: 1986-2005

★ Template of biennial report of water use

★ Summary of existing regulations regarding ground water and surface water rights in Indiana





Summary of Work Already Completed by DNR (cont.)



★ GIS coverages to help identify potential areas of conflict among water users



★ Identified stream reaches where conflicts have occurred or have high potential to occur related to water withdrawal





Summary of Work Already Completed by DNR (cont.)



- ★ Developed a website to keep public informed about the status of the State's water resource – updated monthly – www.ai.org/dnr/water/water_availability/WaterResource.index.html
- ★ Developed a webpage having water conservation tips for various types of users



Summary of Work Already Completed by DNR (cont.)



★ Developed Resource Notebook for the Water Shortage Task Force



★ Refined objectives to achieve purpose of Water Shortage Plan





Summary of Work Already Completed by DNR (cont.)



- ★ Identified priority circumstances for which Water Shortage Plan could be applicable and beneficial
- ★ Established principles to use to determine a priority use schedule
- ★ Researched Minimum Stream Flow and collected and experimented with pertinent software and models
- ★ Held meetings with various stakeholder groups



Next Steps

★ First meeting requirements:

- establish list of activities
- establish timeframe under which tasks will be implemented

Revised Water Shortage Plan shall be presented to Water Resources Study Committee before July 1, 2009